BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work :- Improvements and Construction of CC Road and Drains at M.S Ramaiah Layout and Havnoor Extn Surrounding Roads in Ward No. 14 Bagalagunte.

Detailed Estimate

Estimate Cost Rs. 200.00 Lakhs

Sl No	Description of work	No	Dimensions			Quantity	Unit	Rate	Amount
			Length	Bredth	Depth				
1	**Earthwork excavation** by manual means for roads,drians& Similar works in ordinary excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications.**(Page No 144., I.No.19.1 of KPWD S.R 2018-19)**								
	Kuvempunagar road								
	1st cross	2	120.00	1.10	1.00	264.00			
	2nd cross	2	120.00	1.10	1.00	264.00			
	Cross road	2	25.00	1.10	1.00	55.00			
	Havnoor Extn								
	7th cross	2	110.00	1.10	1.00	242.00			
	Gap between Drain and Asphalt surface	2	110.00	0.50	0.30	33.00			
	6th cross	2	90.70	1.10	1.00	199.54			
	Gap between Drain and Asphalt surface	2	90.70	0.50	0.30	27.21			
	5th cross	2	80.00	1.10	1.00	176.00			
	Gap between Drain and Asphalt surface	2	80.00	0.50	0.30	24.00			
	4th cross	2	75.00	1.10	1.00	165.00			
	Gap between Drain and Asphalt surface	2	75.00	0.50	0.30	22.50			
	For kerbs								
	Kuvempunagar road								
	1st cross	2	120.00	0.30	0.30	21.60			
	2nd cross	2	120.00	0.30	0.30	21.60			
	Cross road	2	25.00	0.30	0.30	4.50			
	Havnoor Extn								
	7th cross	2	110.00	0.30	0.30	19.80			
	6th cross	2	90.70	0.30	0.30	16.33			

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	5th cross	2	80.00	0.30	0.30	14.40			
	4th cross	2	75.00	0.30	0.30	13.50			
	For culverts								
	Kuvempunagar road	2	7.00	2.00	0.90	25.20			
	Havnoor Extn	6	5.00	2.00	0.90	54.00		207.60	345276.17
					Total	**1663.18**	**Cum**	**225.36**	**374806.69**
2	KSRB 4-1.2 : Providing and laying in position plain cement concrete of mix **1:3:6** with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 **(Page No~~13.~~ 222, I.~~No.4.2~~ of KPWD S.R 2018-19)** Rate NO - 2718									
	Kuvempunagar road								
	1st cross	2	120.00	1.10	0.15	39.60			
	2nd cross	2	120.00	1.10	0.15	39.60			
	Cross road	2	25.00	1.10	0.15	8.25			
	Havnoor Extn								
	7th cross	2	110.00	1.10	0.15	36.30			
	Gap between Drain and Asphalt surface	2	110.00	0.50	0.15	16.50			
	6th cross	2	90.70	1.10	0.15	29.93			
	Gap between Drain and Asphalt surface	2	90.70	0.50	0.15	13.61			
	5th cross	2	80.00	1.10	0.15	26.40			
	Gap between Drain and Asphalt surface	2	80.00	0.50	0.15	12.00			
	4th cross	2	75.00	1.10	0.15	24.75			
	Gap between Drain and Asphalt surface	2	75.00	0.50	0.15	11.25			
	For kerbs								
	Havnoor Extn								
	7th cross	2	110.00	0.30	0.15	9.90			
	6th cross	2	90.70	0.30	0.15	8.16			
	5th cross	2	80.00	0.30	0.15	7.20			
	4th cross	2	75.00	0.30	0.15	6.75			

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	For culverts								
	Kuvempunagar road	2	7.00	2.00	0.15	4.20			
	Havnoor Extn	6	5.00	2.00	0.15	9.00		5421.90	1645004.46
					Total	**303.40**	**Cum**	**5505.64**	**1670405.67**
3	KSRB 4.2.7 : Providing and laying in psition reinforced cement concretefor side drains using M20Nominal mix Concrete with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.43cum, mechine mixed ,well compacted for walls and bottom includeing centering,shuttering,cost of material,HOM of machinery,curing etc., complete excluding cost steel as per MORTH specification No.1500,1700,2200, including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. Wall & bottom thickness 15cm(Page No 271., I.No.37.59.2 of KPWD S.R 2018-19)								
	For Raft								
	Kuvempunagar road								
	1st cross	2	120.00	1.10	0.15	39.60			
	2nd cross	2	120.00	1.10	0.15	39.60			
	Cross road	2	25.00	1.10	0.15	8.25			
	Havnoor Extn								
	7th cross	2	110.00	1.10	0.15	36.30			
	6th cross	2	90.70	1.10	0.15	29.93			
	5th cross	2	80.00	1.10	0.15	26.40			
	4th cross	2	75.00	1.10	0.15	24.75			
	For culverts								
	Kuvempunagar road	2	7.00	1.50	0.20	4.20			
	Havnoor Extn	6	5.00	1.50	0.20	9.00			
	For Side walls								
	Kuvempunagar road								
	1st cross	4	120.00	0.15	0.90	64.80			
	2nd cross	4	120.00	0.15	0.90	64.80			
	Cross road	4	25.00	0.15	0.90	13.50			
	Havnoor Extn								
	7th cross	4	110.00	0.15	0.90	59.40			
	6th cross	4	90.70	0.15	0.90	48.98			
	5th cross	4	80.00	0.15	0.90	43.20			
	4th cross	4	75.00	0.15	0.90	40.50			
	For culverts								

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	Kuvempunagar road	2x2	7.00	0.23	0.90	5.80			
	Havnoor Extn	2X6	5.00	0.23	0.90	12.42			
					Total	**571.43**	**Cum**	**7070.20**	**4040089.035**
4	KSRB 4.2.1 : Providing and laying in position reinforced cement concrete of Design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregtes @ 0.47cum, with super plasticisers @ 3 liters confirming to is 9103-1999 reafirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. Specification No. KBS 4.1, 4.6(Page No ~~14.~~, I.No.~~4.10~~ of KPWD S.R 2018-19) Item No. 27.8.2, Pg.No. 226								
	Gap between Drain and Asphalt surface								
	Havnoor Extn								
	7th cross	2	110.00	0.45	0.15	14.85			
	6th cross	2	90.70	0.45	0.15	12.24			
	5th cross	2	80.00	0.45	0.15	10.80			
	4th cross	2	75.00	0.45	0.15	10.13			
	for gap between house and drains	2	620.70	0.15	0.30	55.86		5951.90	618283.37
					Total	**103.88**	**Cum**	**6160.72**	**639991.00**
5	KSRB 4.9.2 : Providing **T.M.T steel reinforcement** for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - TMT bars Fe 500**(Page No ~~18.~~, I.No.~~4.46~~.2 of KPWD S.R 2018-19).** 239 29.9.2								
	For Drains								
	Qty as itemNo-3					540.01			
			at 70kgs /cum			37800.63			
	For Culverts								
	Qty as itemNo-3					31.42			
			at 90kgs /cum			2827.44			
						40628.07	Kgs		

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					Total	**40.63**	**Tonne**	75223.96 / 73992.24	**3056204.313** / 3006304.71
6	providing and Fixing **RCC precast cover slab 250 mm** thick made out of CC1:1.5:3 and jelly 20 mm down size with steel reinforcement including form work,curing,including cost of all materials,lobour,hire charges of machinery,loading, unloading ,lead and lift, transportation etc., complete (Data rate) Approved Date Rate								
	Kuvempunagar road	2	7.00	1.20		16.80			
	Havnoor Extn	10	5.00	1.20		60.00			
					Total	**76.80**	**Sqm**	5418.00 / 5241.00	**416102.40** / 402508.80
7	providing and Fixing **RCC precast cover slab** made out of 1:2:4 with 10cm thick and Finishing cutting,including form work,curing,includinh cost of all materials,lobour,hire charges of machinery,loading, unloading ,lead and lift, transportation etc., - **Data rate** (Approved Date Rate)								
	Kuvempunagar road								
	1st cross	2	60.00	0.90		108.00			
	2nd cross	2	60.00	0.90		108.00			
	Cross road	2	12.50	0.90		22.50			
	Havnoor Extn								
	7th cross	2	55.00	0.75		82.50			
	6th cross	2	45.35	0.75		68.03			
	5th cross	2	40.00	0.75		60.00			
	4th cross	2	37.50	0.75		56.25			
					Total	**505.28**	**sqm**	2300.00 / 2208.00	**1162132.50** / 1115658.24
8	Providing **granite slabs** of selected quality roughly dressed and fixed in cement mortar(1:6) including fixing curing etc., Complete. Using 10cm thick slabs (Page no 27., I.No .5.31.2 of KPWD S.R 2018-19).								
	Kuvempunagar road								
	1st cross	2	60.00	0.90		108.00			
	2nd cross	2	60.00	0.90		108.00			
	Cross road	2	12.50	0.90		22.50			
	Havnoor Extn								
	7th cross	2	55.00	0.75		82.50			
	6th cross	2	45.35	0.75		68.03			
	5th cross	2	40.00	0.75		60.00			
	4th cross	2	37.50	0.75		56.25			
					Total	**505.28**	**Sqm**	**966.72**	**488459.45**

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9	Providing two **line dressing** to granite stone slab/granite stone masonary as per specifications.(Page no 26., I.No .5.18 of KPWD S.R 2018-19).								
	Kuvempunagar road								
	1st cross	2	60.00	0.90		108.00			
	2nd cross	2	60.00	0.90		108.00			
	Cross road	2	12.50	0.90		22.50			
	Havnoor Extn								
	7th cross	2	55.00	0.75		82.50			
	6th cross	2	45.35	0.75		68.03			
	5th cross	2	40.00	0.75		60.00			
	4th cross	2	37.50	0.75		56.25			
					Total	**505.28**	**Sqm**	**1584.70**	**800709.29**
10	Providing **Chamfering edges** to stone slab 2.5 cms wide as per specifications.(Page no 26., I.No .5.22 of KPWD S.R 2018-19).								
	Kuvempunagar road								
	1st cross	2	60.00	0.90		108.00			
	2nd cross	2	60.00	0.90		108.00			
	Cross road	2	12.50	0.90		22.50			
	Havnoor Extn								
	7th cross	2	55.00	0.75		82.50			
	6th cross	2	45.35	0.75		68.03			
	5th cross	2	40.00	0.75		60.00			
	4th cross	2	37.50	0.75		56.25			
					Total	**505.28**	**sqm**	**61.48**	**31064.31**
11	Providing and fixing **pre cast solid cement concrete kerb stones** made out of C.C. 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete. **(Page No 27., I.No.5.30 of KPWD S.R 2018-19).**								
	Kuvempunagar road								
	1st cross	2	120.00			240.00			
	2nd cross	2	120.00			240.00			
	Cross road	2	25.00			50.00			
	Havnoor Extn								
	7th cross	2	110.00			220.00			
	6th cross	2	90.70			181.40			
	5th cross	2	80.00			160.00			
	4th cross	2	75.00			150.00			
						1241.40			

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						2759			
					Total	**2758.67**	**No's**	**432.48**	**1193068.16**
									1193212.32
12	Providing and applying **primer coat** for surfaces of medium porosity like cement stabilized soil base @ 0.90kg/sqmt over prepared surface with S.S bitumen emulsion using bitumen tanker fitted with spray set (excluding cleaning of road surface) including cost of all material, labour, HOM of machineries complete as per specifications...(Page no 158., I.No 21.5 of KPWD S.R 2018-19)								
	Kuvempunagar road								
	1st cross	2	120.00		0.40	96.00			
	2nd cross	2	120.00		0.40	96.00			
	Cross road	2	25.00		0.40	20.00			
	Havnoor Extn								
	7th cross	2	110.00		0.40	88.00			
	6th cross	2	90.70		0.40	72.56			
	5th cross	2	80.00		0.40	64.00			
	4th cross	2	75.00		0.40	60.00			
					Total	**496.56**	**Sqm**	**46.64**	**23159.56**
13	KSRRB 800-1. **Painting two coats after filling** the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8. **(Page No 180., I.No.24.1 of KPWD S.R 2018-19).**								
	Kuvempunagar road								
	1st cross	2	120.00		0.40	96.00			
	2nd cross	2	120.00		0.40	96.00			
	Cross road	2	25.00		0.40	20.00			
	Havnoor Extn								
	7th cross	2	110.00		0.40	88.00			
	6th cross	2	90.70		0.40	72.56			
	5th cross	2	80.00		0.40	64.00			
	4th cross	2	75.00		0.40	60.00			
					Total	**496.56**	**Sqm**	**84.80**	**42108.29**
	For CC Road-Kuvempunagar								
14	**Earthwork excavation** by manual means for roads,drians& Similar works in ordinary excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications.**(Page No 144., I.No.19.1 of KPWD S.R 2018-19)**								
	1st cross	1	130.00	5.00	0.45	292.50			
	2nd cross	1	127.00	5.00	0.45	285.75			
	Cross road	1	25.00	5.00	0.45	56.25		207.60	131722.20
					Total	**634.50**	**Cum**	**225.36**	**142988.38**

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15	KSRRB M400- **Wet Mix Macadam** KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406**(Page No 155., I.No.20.18 of KPWD S.R 2018-19).**								
	1st cross	1	130.00	5.00	0.15	97.50			
	2nd cross	1	127.00	5.00	0.15	95.25			
	Cross road	1	25.00	5.00	0.15	18.75			
					Total	**211.50**	**Cum**	**2001.28**	**423270.72**
16	KSRB 4-1.2 : Providing and laying in position **plain cement concrete of mix 1:3:6** with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 **(Page No~~13.~~, I.~~No.4.2~~ of KPWD S.R 2018-19)** 222 27.18								
	1st cross	1	130.00	5.00	0.15	97.50			
	2nd cross	1	127.00	5.00	0.15	95.25			
	Cross road	1	25.00	5.00	0.15	18.75		5421.90	1146731.85
					Total	**211.50**	**Cum**	**5505.64**	**1164442.86**

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17	Cement concrete pavement.Construction of **un-reinforced plain cement concrete pavement,** thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum)**(Page No 176., I.No.22.6.1 of KPWD S.R 2018-19).**								
	1st cross	1	130.00	5.00	0.15	97.50			
	2nd cross	1	127.00	5.00	0.15	95.25			
	Cross road	1	25.00	5.00	0.15	18.75			
					Total	**211.50**	**Cum**	**5210.96**	**1102118.04**
18	**Vaccum de-watering** with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.**(Page No 176., I.No.22.7 of KPWD S.R 2018-19).**								
	1st cross	1	130.00	5.00		650.00			
	2nd cross	1	127.00	5.00		635.00			
	Cross road	1	25.00	5.00		125.00			
					Total	**1410.00**	**sqm**	**72.08**	**101632.80**
								Total Construction charges	~~16872753.46~~

Total construction cost = 16657313.61

GST 12% = 1998877.63

Sub total = 18656191.24

Tender premium S.S/. = 1026090.52

PMC & DPR charges = 279842.87

miscellaneous & Powdry ff = 37875.37

Total Amount = 20000000.00

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	Tender Premium @ 5%	(+)	849100.00
	Towards GST12%	(+)	2024730.42
	Towards PMC and DPR @1.5%	(+)	253091.30
	Miscellaneous and Rounding off		324.82
	TOTAL AMOUNT		**20000000.00**

Certificate:

1. The work spot has been inspected and items made are found to be necessary .
2. The work spot comes under BBMP Limits.
3. The provisions made in the estimate are necessary and minimum.
4. The estimate is based on CSR of PWD Circle, Bangalore for the year 2018-19.

Consultant

Assistant Engineer
Project Division , Dasarahalli
BBMP, Bangalore

Assistant Executive Engineer
Project Division , Dasarahalli
BBMP, Bangalore

Executive Engineer
Project Division , Dasarahalli
BBMP, Bangalore

ನಂ.CE/D2/175/185/18-19 ದಿನಾಂಕ : 22/02/2019
ರೂ.200.00 Lakhs/- (Rs. Two Hundred lakhs only).
ಗಳ ಅಂದಾಜು ಪಟ್ಟಿಗೆ ತಾಂತ್ರಿಕ ಮಂಜೂರಾತಿ ನೀಡಿದೆ.

ತಾಂತ್ರಿಕ ಸಹಾಯಕರು

ಮುಖ್ಯ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ.
ದಾಸರಹಳ್ಳಿ ವಲಯ, ಬೆಂಗಳೂರು.

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